

INFORMATION REPORT INFORMATION REPORT

CENTRAL INTELLIGENCE AGENCY

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COUNTRY East Germany 25X1
 REPORT 25X1
 SUBJECT VEB Kabelwerk Vacha Development
 of UHF Cable in 1954
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During the last half of 1954, VEB Kabelwerk Vacha of Vacha/Rhoen developed the following three UHF cables:

1. A coaxial cable, in which the centering of the inner conductor is effected by polystyrol bell-shaped spacers. The inner conductor is of solid copper, 3.2 mm in diameter, and the outer is a tube, 10 mm in diameter, made of woven flat copper tape; other technical data are as follows:
 - (a) Characteristic impedance $Z = 60 \text{ ohms}$ (tolerance $\pm 2 \text{ ohms}$)
 - (b) Capacitance $C = 68 \text{ pF per meter}$ (tolerance $\pm 4 \text{ pF}$)
 - (c) VSWR (Voltage standing wave ratio)
 - @ 600 mcs, maximum < 1.10
 - @ 1000 mcs, maximum < 1.15
 - @ 2000 mcs, maximum < 1.25
 - (d) Attenuation per kilometer
 - @ 10 mcs - 1.33 nepers
 - @ 100 mcs - 4.30 nepers
 - @ 1000 mcs - 15.0 nepers
 - @ 3000 mcs - 30.0 nepers
 - (e) Maximum permissible strength of UHF signals transmitted:

Outdoor temperature	@ 10 mcs	@ 400 mcs
30° C	2.4 kW	0.37 kW
40° C	1.46 kW	0.22 kW
50° C	0.68 kW	0.105 kW

According to the specification, this cable meets the requirements of DIN Deutsche Industriennorm 47 265.

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(Note: Washington distribution indicated by "X"; Field distribution by "#")

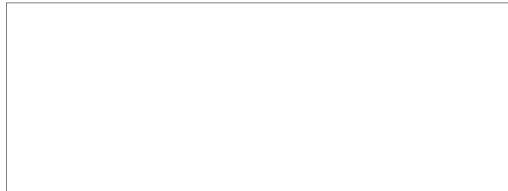
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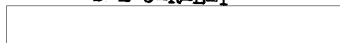
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2. A cable, with the type number 016.1, which has solid Oppanol insulation, and gives attenuation of 60 nepers per km. at 2000 mcs. It is apparently intended for use as a connecting cable inside equipment.
3. An experimental cable which has been given the type number B.86. It is said to have transmission characteristics giving attenuation of 23 nepers per km. at 2000 mcs.



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